

A3 CONCLD

100. (New) The method of claim 83 wherein Y₁ and Y₂ are each tryptophan or a derivative thereof, such that said covalent bond generates a δ₁δ₁-ditryptophan, or a derivative thereof.

REMARKS

Claims 1-82 were previously pending in the application. By this Preliminary Amendment, claims 1-75 and 82 have been canceled, while claims 83-100 have been added. Accordingly, claims 76-81 and 83-100 are currently pending. Claims 76-78 have been amended to incorporate the limitation of claim 1 into these claims. Claims 83-100 have been added to incorporate the limitations of claims 2-19 into original claims 76-78. In addition, the amendment also revises the Related Applications paragraph. No new matter has been added.

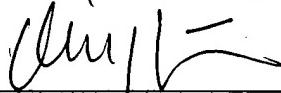
Consideration of the present application in view of the above amendment is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**V**ersion With **M**arkings **t**o **S**how **C**hanges **M**ade."

Respectfully submitted,

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Seed Intellectual Property Law Group PLLC



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(See Limited Recognition in File)

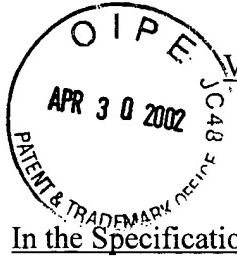
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Please replace the paragraph beginning at page 1, line 7, with the following rewritten paragraph:

This application is a continuation of U.S. Patent Application No. 09/507,102, filed February 17, 2000, now issued as U.S. Pat. No. 6,326,352, which is a continuation of U.S. Patent Application No. 08/893,534, filed July 11, 1997, now issued as U.S. Pat. No. 6,031,072; which claims the benefit of U.S. Provisional Application No. 60/021,612, filed on July 12, 1996, which applications and patents are incorporated herein by reference in their entirety.

In the Claims:

Claims 1-75 and 82 have been canceled.

Claims 76-78 have been amended as follows:

76. (Amended) A method for modulating cell adhesion, comprising contacting a cadherin-expressing cell with an antibody that binds to a cyclic peptide according to any one of claims 1-19 that comprises the sequence His-Ala-Val and modulates cadherin-mediated cell adhesion.

77. (Amended) A method for targeting a drug to a cadherin-expressing cell in a mammal, comprising administering to a mammal an antibody that binds to a cyclic peptide according to any one of claims 1-19 that comprises the sequence His-Ala-Val and modulates cadherin-mediated cell adhesion, wherein said antibody is linked to a drug.

78. (Amended) A method for detecting the presence of cadherin-expressing cells in a sample, comprising:

(a) contacting a sample with an antibody that binds to a cyclic peptide according to any one of claims 1-19 that comprises the sequence His-Ala-Val and modulates

cadherin-mediated cell adhesion under conditions and for a time sufficient to allow formation of an antibody-cadherin complex; and

(b) detecting the level of antibody-cadherin complex, and therefrom detecting the presence of cadherin expressing cells in a sample.

Claims 83-100 have been added as follows:

83. (New) The method of any one of claims 76-78 wherein in the cyclic peptide having the formula:



wherein X₁, and X₂ are optional, and if present, are independently selected from the group consisting of amino acid residues and combinations thereof in which the residues are linked by peptide bonds, and wherein X₁ and X₂ independently range in size from 0 to 10 residues, such that the sum of residues contained within X₁ and X₂ ranges from 1 to 12;

wherein Y₁ and Y₂ are independently selected from the group consisting of amino acid residues, and wherein a covalent bond is formed between residues Y₁ and Y₂; and

wherein Z₁ and Z₂ are optional, and if present, are independently selected from the group consisting of amino acid residues and combinations thereof in which the residues are linked by peptide bonds.

84. (New) The method of claim 83 wherein Z₁ is not present and Y₁ comprises an N-acetyl group.

85. (New) The method of claim 83 wherein Z₂ is not present and Y₂ comprises a C-terminal amide group.

86. (New) The method of claim 83 wherein Y₁ and Y₂ are covalently linked via a disulfide bond.

87. (New) The method of claim 86 wherein Y₁ and Y₂ are each independently selected from the group consisting of penicillamine, β,β-tetramethylene cysteine, β,β-pentamethylene cysteine, β-mercaptopropionic acid, β,β-pentamethylene-β-mercaptopropionic acid, 2-mercaptopbenzene, 2-mercaptoaniline, 2-mercaptoproline and derivatives thereof.

88. (New) The method of claim 86 wherein Y₁ and Y₂ are cysteine residues or derivatives thereof.

89. (New) The method of claim 88 wherein wherein said cyclic peptide comprises the sequence Cys-His-Ala-Val-Cys (SEQ ID NO:8).

90. (New) The method of claim 89 further comprising an N-acetyl group.

91. (New) The method of claim 89 further comprising a C-terminal amide group.

92. (New) The method of claim 88 wherein said cyclic peptide comprises a sequence selected from the group consisting of Cys-Ala-His-Ala-Val-Asp-Ile-Cys (SEQ ID NO:10), Cys-Ser-His-Ala-Val-Cys (SEQ ID NO:12), Cys-His-Ala-Val-Ser-Cys (SEQ ID NO:14), Cys-Ala-His-Ala-Val-Asp-Cys (SEQ ID NO:16) and Cys-Ser-His-Ala-Val-Ser-Ser-Cys (SEQ ID NO:18).

93. (New) The method of claim 83 wherein Y₁ and Y₂ are covalently linked via an amide bond.

94. (New) The method of claim 93 wherein said amide bond is formed is formed between terminal functional groups.

95. (New) The method of claim 93 wherein said amide bond is formed between residue side-chains.

96. (New) The method of claim 93 wherein said amide bond is formed between one terminal functional group and one residue side chain.

97. (New) The method of claim 93, wherein:

(a) Y_1 is selected from the group consisting of lysine, ornithine, and derivatives thereof and Y_2 is selected from the group consisting of aspartate, glutamate and derivatives thereof; or

(b) Y_2 is selected from the group consisting of lysine, ornithine and derivatives thereof and Y_1 is selected from the group consisting of aspartate, glutamate and derivatives thereof.

98. (New) The method of claim 93 wherein said cyclic peptide comprises the sequence Lys-His-Ala-Val-Asp (SEQ ID NO:20) or Ala-His-Ala-Val-Asp-Ile (SEQ ID NO:44).

99. (New) The method of claim 83 wherein Y_1 and Y_2 are covalently linked via a thioether bond.

100. (New) The method of claim 83 wherein Y_1 and Y_2 are each tryptophan or a derivative thereof, such that said covalent bond generates a $\delta_1\delta_1$ -ditryptophan, or a derivative thereof.